

Section 102(e) Rejection:

The Office Action rejected claims 1-12, 15-23, 25-36, 41-44 and 46-53 under 35 U.S.C. § 102(e) as being anticipated by Sun et al. (U.S. Patent 6,442,663) (hereinafter “Sun”). Applicants assert that pending claims 1-12, 15-23, 25-36, 41-44 and 46-53 are not anticipated by Sun for at least the following reasons.

The Examiner has not established a proper case of anticipation because the teachings relied on by the Examiner are from separate works. Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Although all the teachings cited by the Examiner are discussed in a single reference, the teachings are not part of a single process migration technique. For example, the portion of Sun cited by the Examiner at col. 6 pertains to a different migration technique than the portion of Sun cited by the Examiner col. 8. To anticipate the claimed invention, Sun must teach a single process migration technique that is identical to Applicants’ claimed invention. Otherwise, Sun cannot be said to teach the identical invention arranged as in Applicants’ claims. Moreover, as discussed below, no combination of teachings in Sun teaches Applicants’ claimed invention.

Sun does not teach storing a first state of the process executing within the first device to a persistent store, as recited in claim 1. A persistent store is different from storing runtime data “in memory.” Sun does not teach storing process state to a persistent store. Typical process migration techniques, such as in Sun, migrate process data from the in-memory execution space of the process. There is no suggestion or reason in the prior art to store the process state to a persistent store.

Moreover, Sun does not teach expiring one or more leases to services for the process on the first device and establishing the one or more leases to services for the process on the second device, as recited in claim 1. The Examiner refers to the general statement in Sun at col. 2, lines 62-65, that “all data necessary for future execution of the process has to be collected and then restored in the data segment of the new process on another machine.” This general statement does not teach that one or more leases are expired for the process on the first device and established for the process on the second device. The Examiner appears to be asserting that leases would be inherent in Sun’s reference to “all data necessary for future execution of the process.” However, “in relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). Many processes and computing platforms do not even use the concept of lease for services. Therefore, leases cannot be said to be inherent in the data mentioned in Sun. Moreover, even for platforms that use leases, a lease would not necessarily be required for future execution of a process after it was migrated. Furthermore, even if leases were used, the leases would not necessarily have to be expired on the first device and then established on the second device. Even for platforms that use leases, the lease information is typically not considered part of the process state and therefore would not migrated with the process in the prior art. “The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Continental Can*, 948 F.2d at 1268, 20 USPQ2d at 1749.

Also, Sun does not teach sending the first state of the process from the persistent store to a second device, as recited in claim 1. The sections of Sun cited by the Examiner mention nothing about sending process state from a persistent store to another device. In fact, Sun clearly refers only to sending information from the run-time memory space.

In regard to claim 2, Sun does not teach stopping the process execution on the second device, selecting a previous states of the process executing within the first device from the persistent store, and reconstituting the selected previous state of the process on the first device. The sections of Sun cited by the Examiner only discuss migrating a process from one machine to another. They mention nothing about being able to resume the process back on the first machine and reconstitute a selected previous state of the process back on the first machine.

In regard to claims 3-12, 15, 19 and 20, the Examiner rejects each of these claims by referring to the single general statement in Sun at col. 2, lines 62-65, that “all data necessary for future execution of the process has to be collected and then restored in the data segment of the new process on another machine.” However, the specific limitations in these claims are clearly not inherent in this statement at col. 2, lines 62-65, of Sun. For example, the process state sent to migrate a process would not necessarily have to include a heap as recited in claim 3. Claims 4-7 refer to particular types of lease information that is clearly not inherent in Sun. There is absolutely no mention at all in Sun of any type of persistent heap and sending process state from a persistent store as recited in claims 10-12. These limitation a clearly not inherent in Sun. In regard to claim 15, it is certainly not inherent in Sun that process state be sent and received as part of an atomic transaction that is committed or rolled-back. Most communications between computers are not performed transactionally and it would certainly not be required in Sun. Applicants remind the Examiner that the he must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). “The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Continental Can*, 948 F.2d at 1268, 20 USPQ2d at 1749. None of the limitations of claims 3-12, 15, 19 and 20 are necessarily present in Sun.

The Examiner rejected claims 16 and 17 as being anticipated by Sun. However, the Examiner did not provide any explanation of how claims 16 and 17 are anticipated by

Sun. Therefore, the rejection of these claims is improper. Furthermore, Applicants assert that the limitations of these claims are clearly not anticipated by Sun.

In regard to claim 18, Sun clearly does not teach a persistent store for storing and sending process state that is on a server external to the first device and the second device. The portions of Sun cited by the Examiner make no mention at all of such a persistent store on a server external to the devices on which the process is being migrated.

Section 103(a) Rejection:

The Office Action rejected claims 13, 14, 16, 17 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Sun in view of Cejtin et al. (U.S. Patent 5,745,703) (hereinafter "Cejtin"). Applicants respectfully traverse this rejection in light of the following remarks.

Claims 13, 14, 16, 17 and 24 are patentable for at least the reasons given above in regard to claim 1.

Furthermore, in regard to claim 13, the concept of a first virtual heap for storing pages flushed from the first in-memory heap is nowhere to be found in the portions of Cejtin cited by the Examiner nor any other part of Cejtin. Nor does Cejtin teach or suggest storing one or more pages from the first in-memory heap to the first virtual heap in the persistent store and sending a copy of the first virtual heap from the persistent store to the second device. Note that the virtual machines shown in Fig. 19 of Cejtin having nothing to do with a virtual heap as recited in claim 13. Just because a process runs in a virtual machine does not teach a virtual heap as recited in claim 13.

Furthermore, there is no suggestion that the process migration technique of Sun would be applicable processes running in Java Virtual Machines as in Cejtin. In fact, Sun is pertains to migrating processes between different environments, whereas Cejtin employs message passing between JVMs that share an address space. The techniques of

the two references are unrelated and there does not appear to be any reason to apply the teachings of one to the other.

Applicants also note that the Office Action does not state a rejection for claims 37-40, 45, 54 and 55. These claims were not included in either the § 102(e) rejection or the § 103(a) rejection.

Information Disclosure Statements:

On p. 2 of the Office Action, the Examiner notes that his consideration of the IDSs is based on a “quick scan of the titles, abstracts, summaries, etc. of the documents.” Applicants note that according to M.P.E.P. § 609, Information Disclosure Statements complying with the appropriate rules and regulations must be fully considered by the Examiner. M.P.E.P. § 609 does not allow for any difference in how Information Disclosure Statements are considered based on how many references are disclosed. Applicants also note that the Office has had more than two full years to consider the references since the first IDS was submitted. Therefore, Applicants assume that before the application is allowed, the Examiner will have fully considered the submitted information disclosure statements as he would any properly submitted information disclosure statement. Applicants have no particular knowledge of relevancy in regard to any of the cited documents.

CONCLUSION

Applicants submit the application is in condition for allowance, and an early notice to that effect is requested.

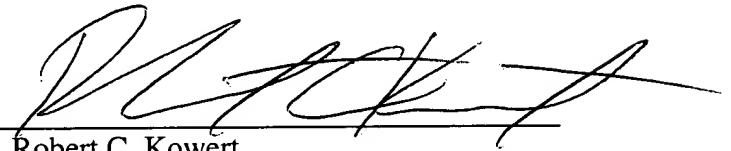
If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicants hereby petition for such extension. If any fees are due, the Commissioner is authorized to charge said fees to

Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-46400/RCK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Fee Authorization Form authorizing a deposit account debit in the amount of \$
for fees ().
- ☐ Other:

Respectfully submitted,



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